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**(54) PRODUCTION OF SYNCHRONIZER RING MADE
OF BRASS TYPE COPPER ALLOY FOR
AUTOMOBILE GEARBOX, EXCELLENT IN
SEIZURE RESISTANCE**

(57) Abstract:

PURPOSE: To produce a synchronizer ring for automobile gearbox, excellent in seizure resistance, by subjecting a brass type copper alloy stock, having a matrix structure composed of $\alpha+\beta'$ phase or β' phase, to finish machining into the prescribed shape and then to annealing at specific temp.

CONSTITUTION: An ingot of a brass type copper alloy,

which has the prescribed composition consisting of Zn, Al, Ni, Ti, Mg, etc., and Cu and also has a structure composed of $\alpha+\beta'$ phase or β' phase, is extruded, hot-forged, and then finish-machined into the prescribed shape. The resultant synchronizer ring having ~~an~~ about 240Hv Vickers hardness is annealed at 300-500°C. By completely removing this annealing working strain, Vickers hardness is reduced to about 170-220Hv. By this method, the synchronizer ring made of brass type copper alloy for automobile gear, excellent in seizure resistance and having long service life, can be obtained.

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